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SHORT COMMUNICATION

Dissection into the interventricular septum: A rare complication of rupture sinus of Valsalva

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A 57-year-old Egyptian man presented with complaints of shortness of breath, dyspnea on exertion, and occasional palpitations. Examination revealed a wide pulse pressure (blood pressure was 160/70 mmHg) and a soft diastolic murmur over the precordium. His resting ECG revealed sinus rhythm with complete left bundle branch block. The echocardiogram showed an aneurysm of the right sinus of Valsalva (Fig. 1). It dissected into the interventricular septum. There was no communication between the sinus and any other cardiac chamber cavity (Fig. 2). No operative intervention was undertaken.

Aneurysms of the sinus of Valsalva account for only 1% of congenital cardiac anomalies. Of these aneurysms, 70% arise from the right sinus of Valsalva. Most of the remainder arise from the noncoronary sinus, and 5% from the left coronary sinus. Complications of sinus of Valsalva aneurysms include aortic insufficiency, coronary artery flow compromise, arrhythmia, and rupture. Most commonly, rupture occurs from the right coronary sinus into the right ventricle or right atrium. However, rupture may also occur into the pericardium, the

pleural space, or the left heart chambers.¹ Dissection of a ruptured sinus of Valsalva aneurysm into the interventricular septum has been reported only rarely.^{1–3} In this case, 2-D echocardiography showed a cystic echolucent cavity in interventricular septum communicating with sinus of Valsalva (Fig. 3). A diagnosis of unruptured aneurysm of Valsalva dissecting into the interventricular septum was made. This complication is extremely rare.

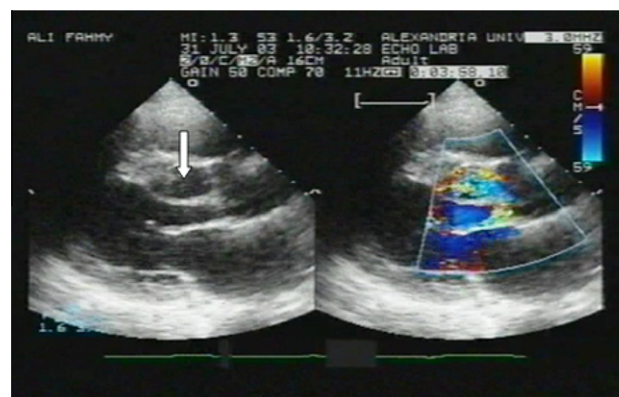


Figure 1 Parasternal long-axis view shows aneurysmal cavity (arrow) arising from right sinus of Valsalva. In same view, color Doppler shows flow from ruptured right sinus of Valsalva into aneurysmal cavity. Mild aortic regurgitant jet is noted.

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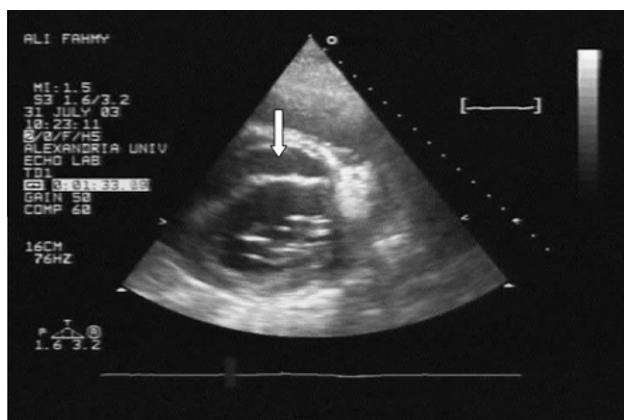


Figure 2 Parasternal short-axis view of left ventricle shows ruptured sinus of Valsalva aneurysm dissecting into interventricular septum (arrow).



Figure 3 Apical 4-chambers view shows cystic echolucent cavity in the interventricular septum (arrow).

Appendix A. Supplementary data

Supplementary data associated with this article can be found, in the online version, at <http://dx.doi.org/10.1016/j.ehj.2012.02.010>.

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